

The Business Case for Using e-Commerce Data to Manage Product Admission at International Borders

Douglas Bailey, Chair
US International Trade Data System
Product Information Committee

September 2011

Imagine Two Ports . . .

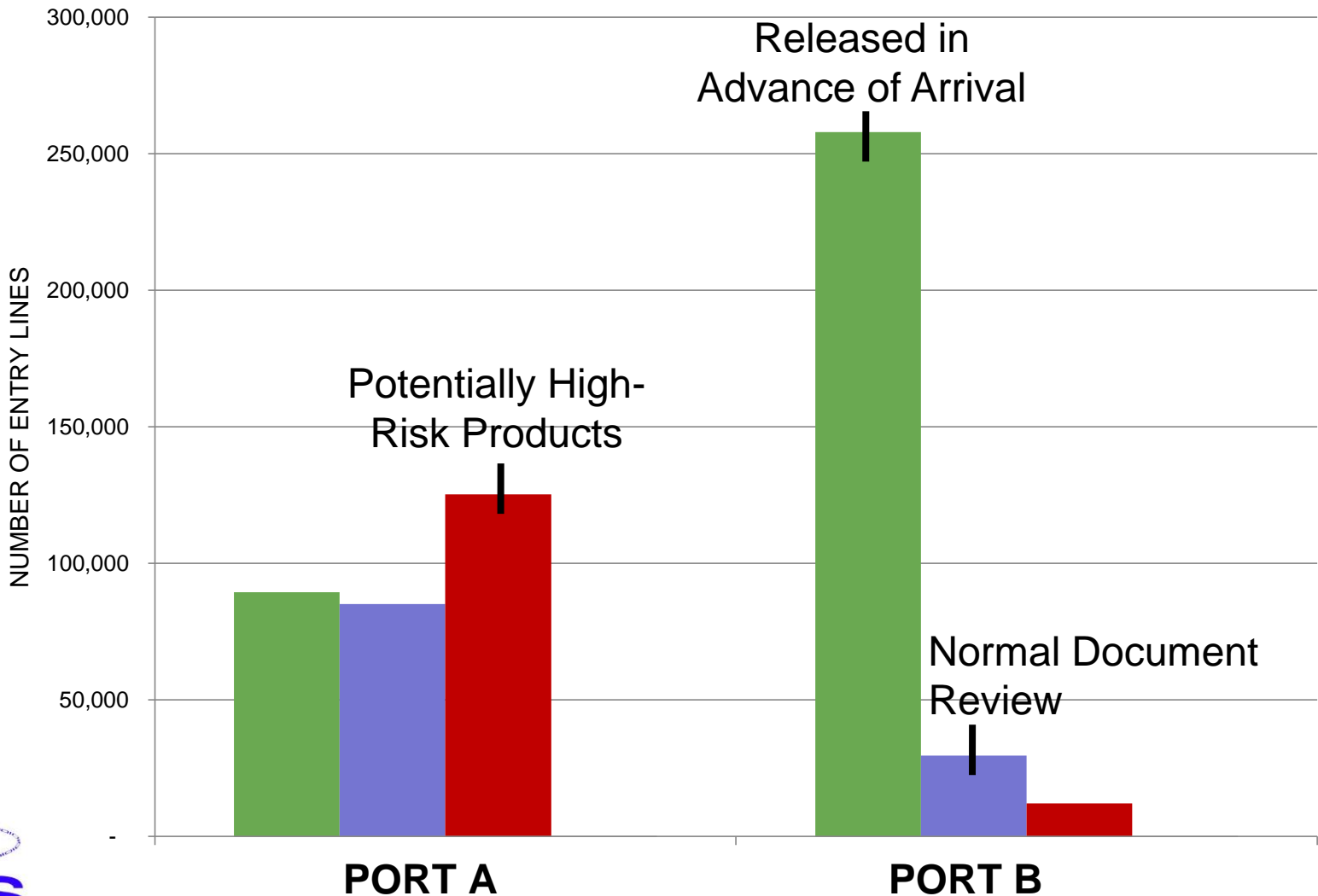


- ✓ 30 % OF LINE ENTRIES RELEASED IN ADVANCE OF ARRIVAL
- ✓ 42 % TARGETED AS POTENTIALLY HIGH RISK
- ✓ ABOUT 5 % OF PRODUCT EXAMS YIELD NON-COMPLIANT PRODUCTS

- ✓ 85 % RELEASED IN ADVANCE OF ARRIVAL
- ✓ 4 % TARGETED AS POTENTIALLY HIGH RISK
- ✓ CONDUCTS FEWER EXAMS AND FINDS MORE NON-COMPLIANT PRODUCTS THAN OTHER PORTS



One Port Markedly More Efficient for Trade and Effective for Citizens



Why Use e-Commerce Data?

- Based on **global, voluntary consensus standards in public domain;**
- **Broadly used** by industry sectors;
- Provides **globally unique identification** for products in the supply chain;
- Provides **structured, internationally recognized, multilingual product categorization and description;** and
- **Uses commonly available technology.**

PLC Recommendation 1

Use Globally Unique Product Identification

Whenever possible, use Global Trade Item Numbers (GTIN) to manage product in each entry line



Use of GTINs Creates New Efficiency

Positive Identification of product brand and model allows PGAs to reuse definitive admission decisions

ENTERED JAN 5

Entry 1000 – Line 1 GTIN = 10555555001019
Entry 1000 – Line 2 GTIN = 10555555001029
Entry 1000 – Line 3 GTIN = 10555555001039
Entry 1000 – Line 4 GTIN = 10666666001179
Entry 1000 – Line 5 GTIN = 10353535432179
Entry 1000 – Line 6 GTIN = 10222222100349
Entry 1000 – Line 7 GTIN = 10222222100359
Entry 1000 – Line 8 GTIN = 10222222100369
Entry 1000 – Line 9 GTIN = 10333333672319
Entry 1000 – Line 10 GTIN = 10333333674219

ENTERED JAN 10

Entry 2222 – Line 1 GTIN = 10555555001019
Entry 2222 – Line 2 GTIN = 10555555001029
Entry 2222 – Line 3 GTIN = 10555555001039
Entry 2222 – Line 4 GTIN = 10666666001179
Entry 2222 – Line 5 GTIN = 10353535432179
Entry 2222 – Line 6 GTIN = 10222222100349
Entry 2222 – Line 7 GTIN = 10222222100359
Entry 2222 – Line 8 GTIN = 10222222100369
Entry 2222 – Line 9 GTIN = 10333333672319
Entry 2222 – Line 10 GTIN = 10333333674219

ENTERED JAN 15

Entry 3333 – Line 1 GTIN = 10555555001019
Entry 3333 – Line 2 GTIN = 10555555001029
Entry 3333 – Line 3 GTIN = 10555555001039
Entry 3333 – Line 4 GTIN = 10666666001179
Entry 3333 – Line 5 GTIN = 10353535432179
Entry 3333 – Line 6 GTIN = 10222222100349
Entry 3333 – Line 7 GTIN = 10222222100359
Entry 3333 – Line 8 GTIN = 10222222100369
Entry 3333 – Line 9 GTIN = 10333333672319
Entry 3333 – Line 10 GTIN = 10333333674219

ENTERED JAN 20

Entry 4444 – Line 1 GTIN = 10555555001019
Entry 4444 – Line 2 GTIN = 10555555001029
Entry 4444 – Line 3 GTIN = 10555555001039
Entry 4444 – Line 4 GTIN = 10666666001179
Entry 4444 – Line 5 GTIN = 10353535432179
Entry 4444 – Line 6 GTIN = 10222222100349
Entry 4444 – Line 7 GTIN = 10222222100359
Entry 4444 – Line 8 GTIN = 10222222100369
Entry 4444 – Line 9 GTIN = 10333333672319
Entry 4444 – Line 10 GTIN = 10333333674219



= EXAMINED UPON ARRIVAL

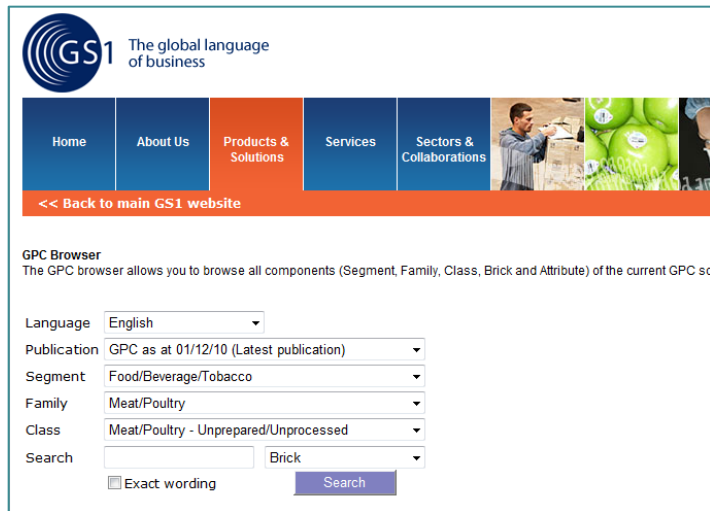


= KNOWN BY PREVIOUS EXAMINATION

PLC Recommendation 2

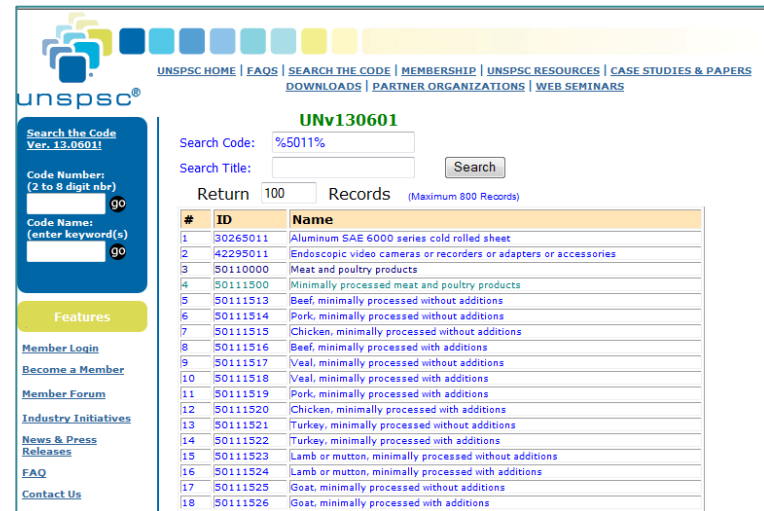
Use Global Classification Codes

Use international product classification codes and descriptors to accurately determine jurisdiction and risk profile for each product in entry



The screenshot shows the GS1 website with the tagline "The global language of business". The navigation menu includes Home, About Us, Products & Solutions, Services, and Sectors & Collaborations. Below the menu is a link to "Back to main GS1 website". The GPC Browser section explains that it allows browsing components (Segment, Family, Class, Brick and Attribute) of the current GPC. It features a language dropdown set to "English", a publication date dropdown set to "GPC as at 01/12/10 (Latest publication)", a segment dropdown set to "Food/Beverage/Tobacco", a family dropdown set to "Meat/Poultry", a class dropdown set to "Meat/Poultry - Unprepared/Unprocessed", and a search field with a "Brick" attribute dropdown and a "Search" button. There is also an "Exact wording" checkbox.

<http://www.gs1.org/gsmpr/kc/gpc>



The screenshot shows the UNSPSC website with the tagline "The global language of business". The navigation menu includes UNSPSC HOME, FAQs, SEARCH THE CODE, MEMBERSHIP, UNSPSC RESOURCES, CASE STUDIES & PAPERS, DOWNLOADS, PARTNER ORGANIZATIONS, and WEB SEMINARS. The search results page shows a search code of "UNv130601" and a search title of "%5011%". The search results table lists 18 records, each with an ID and a Name.

#	ID	Name
1	30265011	Aluminum SAE 6000 series cold rolled sheet
2	42295011	Endoscopic video cameras or recorders or adapters or accessories
3	50110000	Meat and poultry products
4	50111500	Minimally processed meat and poultry products
5	50111513	Beef, minimally processed without additions
6	50111514	Pork, minimally processed without additions
7	50111515	Chicken, minimally processed without additions
8	50111516	Beef, minimally processed with additions
9	50111517	Veal, minimally processed without additions
10	50111518	Veal, minimally processed with additions
11	50111519	Pork, minimally processed with additions
12	50111520	Chicken, minimally processed with additions
13	50111521	Turkey, minimally processed without additions
14	50111522	Turkey, minimally processed with additions
15	50111523	Lamb or mutton, minimally processed without additions
16	50111524	Lamb or mutton, minimally processed with additions
17	50111525	Goat, minimally processed without additions
18	50111526	Goat, minimally processed with additions

<http://www.unspsc.org>

Global Classification Codes

Extend Product Visibility



DESCRIPTION	STEP START WALK N RIDE	BOUNCIN BABBLES	HEROES ACTION FIGURES
HTS CODE	9503.00.0080		
HTS NAME	US-CHILDREN'S TOYS		
GPC CODE	10005187	10005143	10005142
GPC CODE NAME	Toys - Ride-on (Non Powered)	Dolls/Soft Toys (Powered)	Dolls/Soft Toys (Non Powered)
GPC DESCRIPTOR	Consumer Lifestage => 9 MONTHS & UP	Consumer Lifestage = >3 YEARS & UP; Power Source = BATTERY; Target Gender = FEMALE; Type of Doll/Soft Toy = BABY DOLL	Consumer Lifestage = >4 YEARS & UP; If Stuffed/Filled = NO; Target Gender = MALE; Type of Toy = ACTION FIGURE

ABI PG RECORD SET PASSES E-COMMERCE DATA TO PGAs

1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0
O	I									S	T	E	P		S	T	A	R	T		W	A	L	K		N		R	I	D	E																		
P	G	0	1	0	0	1	C	P				S	R	V		1	0	1	2	3	4	5	0	0	0	1	2	3	4						1	3	0	.	8	4	0	-	0	0	3				
P	G	0	2		G	P	C		1	0	0	0	5	1	8	7																																	

OI @11 -- The **commercial description** of the product.

PG01 @ 13 -- **Product's GTIN code** (SRV 10123450001234)

PG02 @ 06 -- **GPC product classification code** for Toys – Ride-On (Non-Powered) (GPC 10005187)

THE PROVISION OF E-COMMERCE DATA BY TRADE IS OPTIONAL!

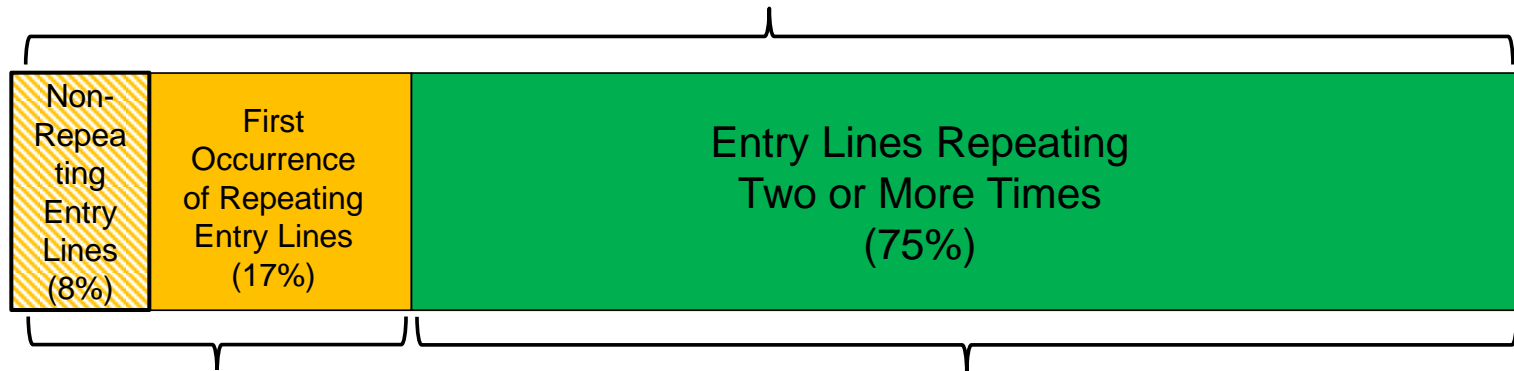
TOY AND GAME BUSINESS CASE

**Consumer Product Safety Commission
and Hasbro**

FINDING – GTINS REVEALED REPETITIVE NATURE OF IMPORTED TOY PRODUCTS

- Use of GTINs in pilot revealed that 75% of toy entry lines are repeating products

For major importer using HTS only, all 5,000 line entries are initially high-risk products and subject to targeting

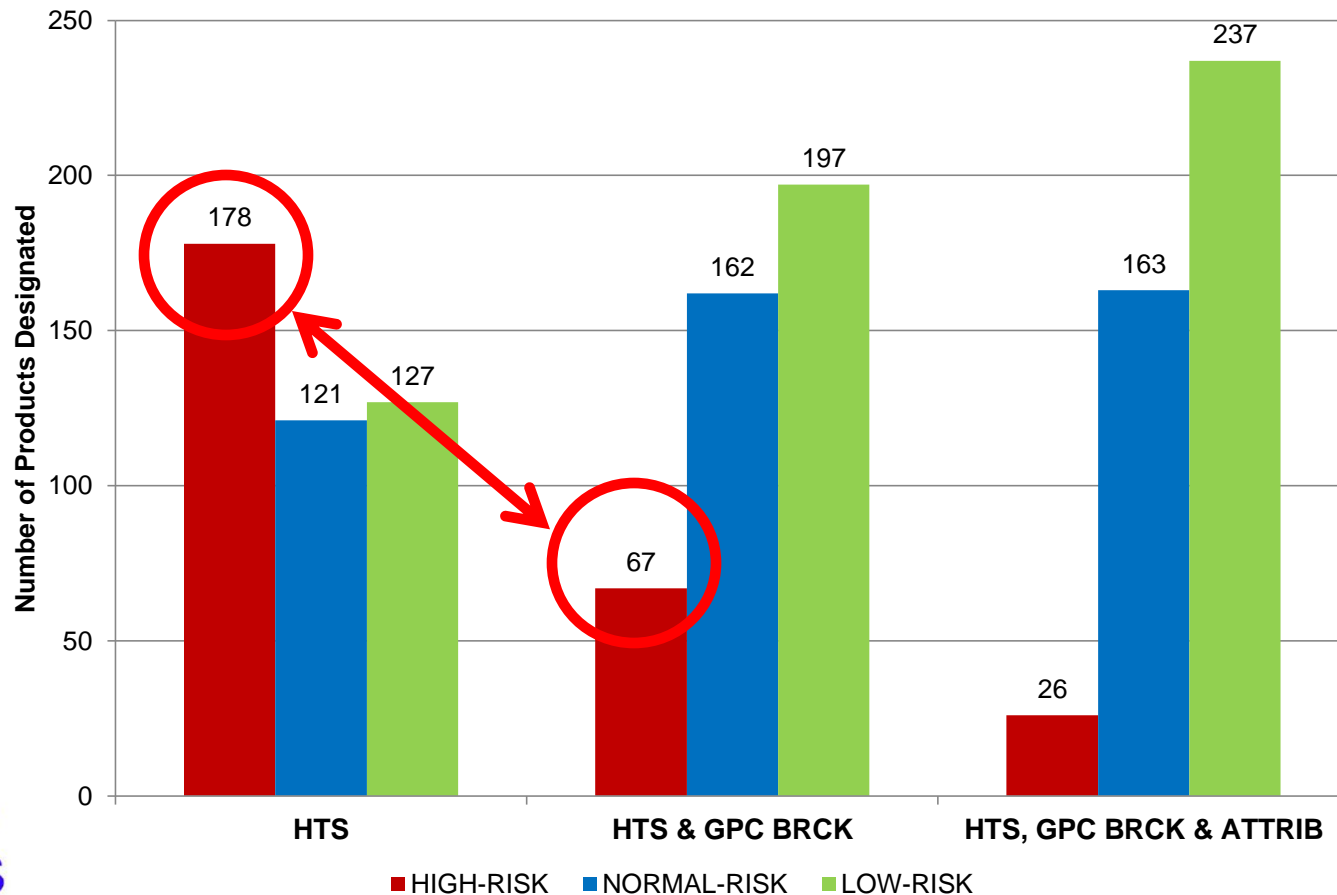


Leaving about 25% (1,300) as unknown, potentially high-risk products

Using GTINs, about 75% (3,700) line entries can be recognized as products with a previous admissions history – no further exam required

FINDING – GPC IMPROVED PRODUCT VISIBILITY

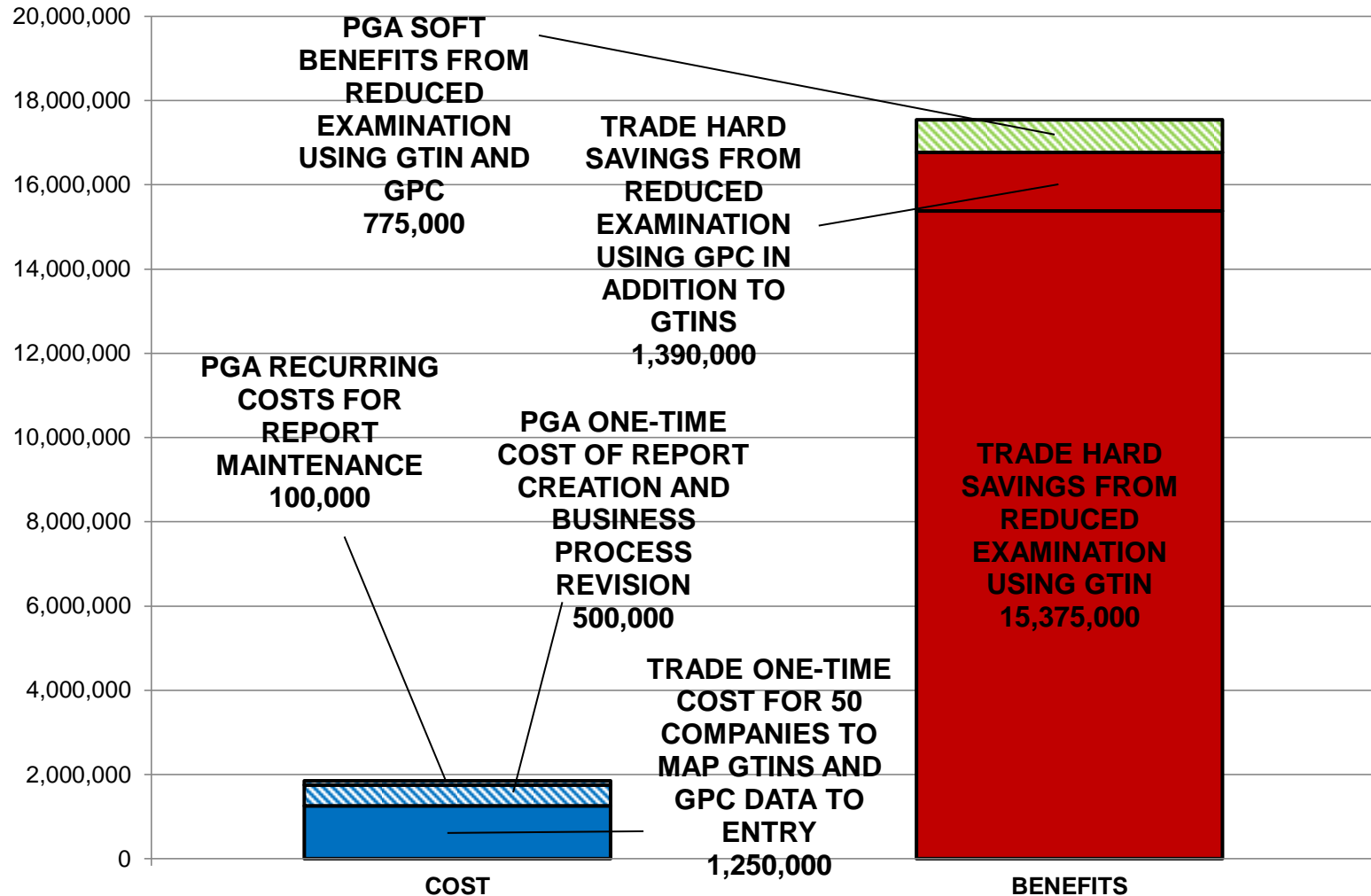
- Use of GPC brick codes reduced number of potentially high-risk products by 62%



BENEFIT – 80% FEWER PRODUCT HOLDS AND EXAMS

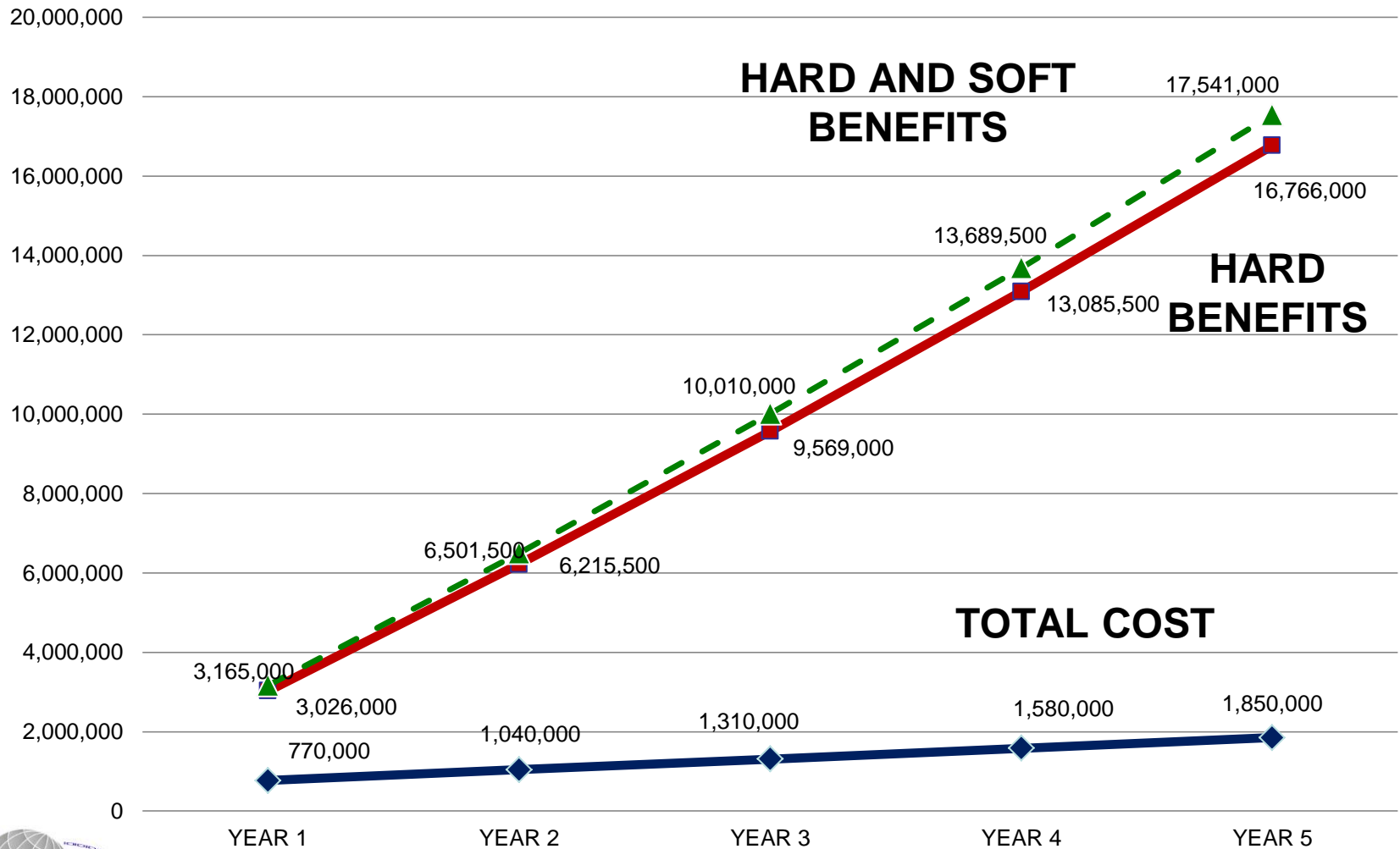
- **Product examinations could be reduced by 80%** with GTINs and GPC codes
- Mid-size importers **could save \$30,000 a year**
- Products known to be low-risk by GTIN, when released in advance, will **improve reliability of product flow**
- Government can focus on 10 to 20% of remaining products, **increasing targeting efficiency** with existing resources

NET VALUE OF \$15.7 M



For TOP 50 TOY Importers Over 5 Years

RETURN ON INVESTMENT OF 850%



CUT FLOWER BUSINESS CASE

**Customs and Border Protection with
USDA-APHIS and the Association of
Floral Importers of Florida**

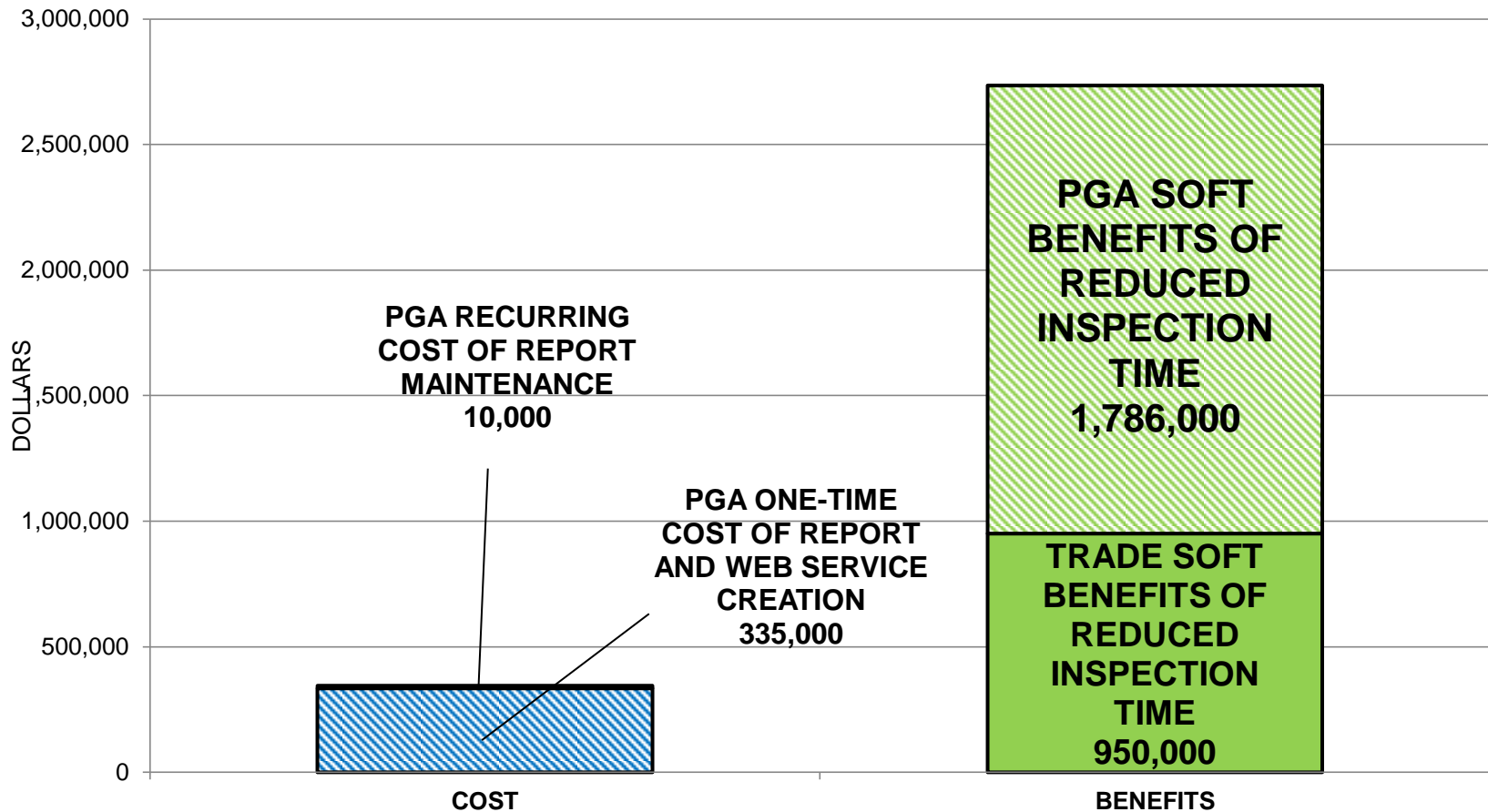
FINDING – GLOBAL CODES ENABLED REPORT AUTOMATION

- **Sampling plan and import volume reports can be computer-generated** when global product code included in PG Record Set
- **PG Record Set accommodates multiple views of product:**
 - (1) tariff assessment by stem type;
 - (2) import volumes by product type; and
 - (3) sampling plan by product type recognizing stem components present.

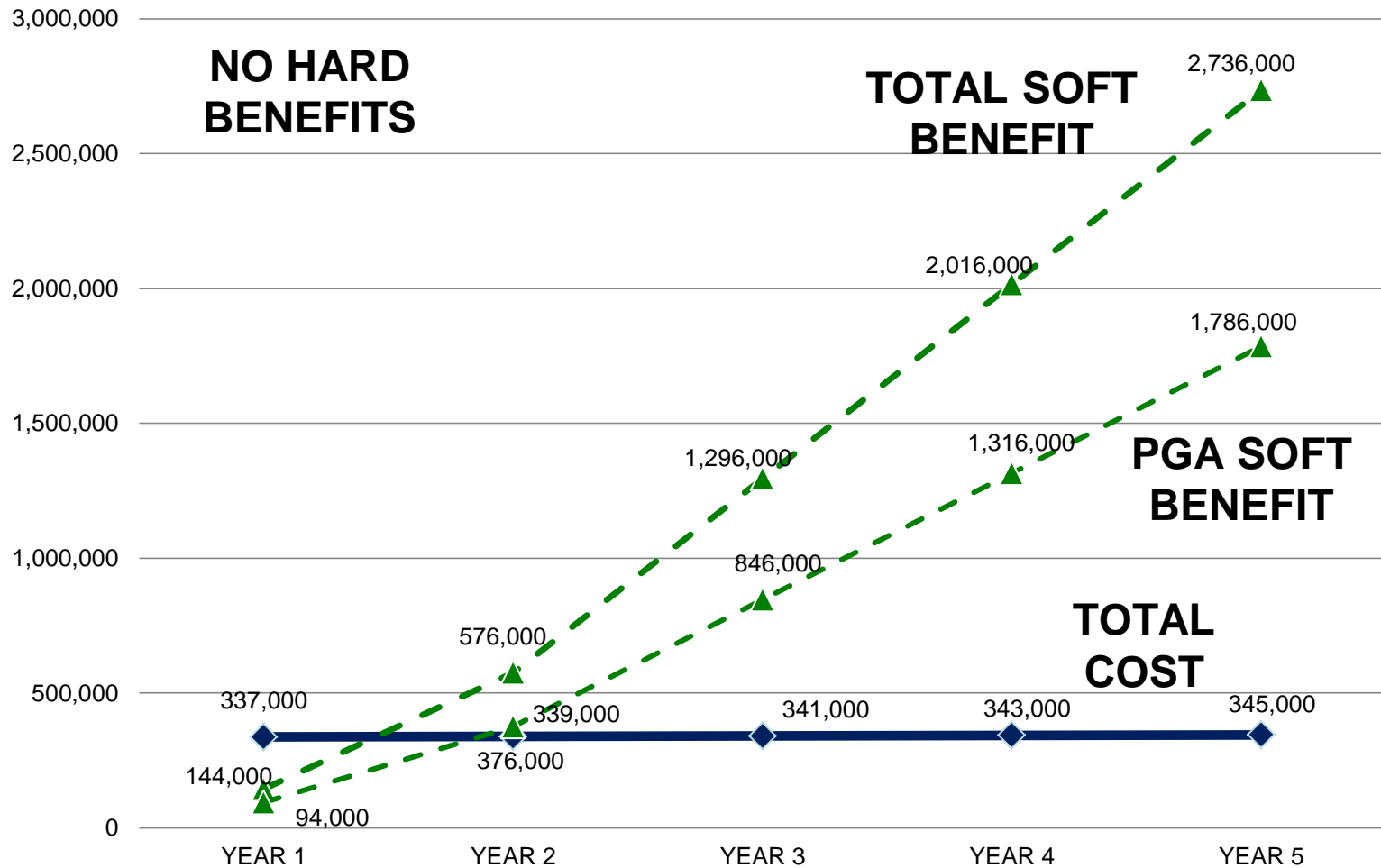
BENEFIT – REDUCED INSPECTION TIME AND IMPROVED ACCURACY

- Average time to inspect cut flower products can be **reduced by 50 percent** by eliminating manual report generation
- Import volume statistics can be computer-generated and sent to APHIS using machine-to-machine process **at lower cost and greater accuracy**
- **Cost avoidance** – generates soft benefits for CBP and trade

NET VALUE OF \$2.4 M



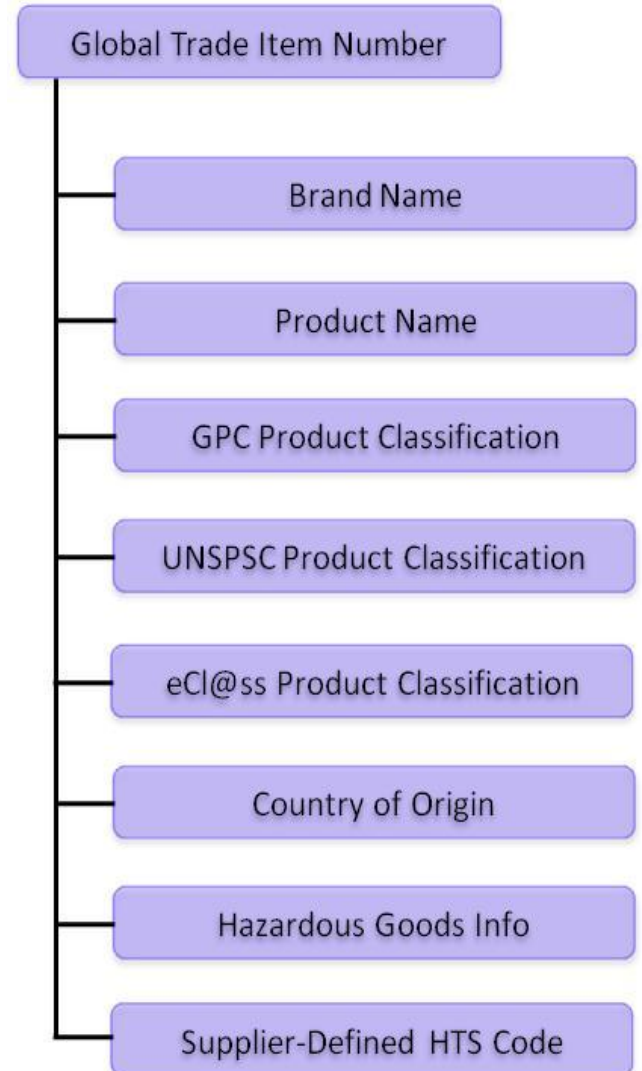
RETURN ON INVESTMENT OF 690%



PIC Recommendation 3

Use Global Product Catalogs

Use GTIN to “look up” product information in secure, **globally-standard electronic product catalogs** – *one data element* unlocks all industry e-commerce product information



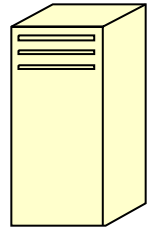
Using Global Codes in Catalogs

Product Supplier



- ① *Product supplier authoritatively publishes product information*

Global Catalog "Cloud"



Importer

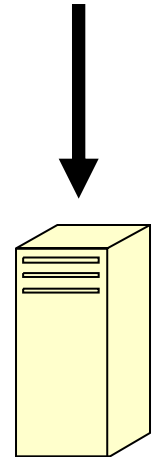


GTIN= 123456119121	GPC = 10005143	GPC DESCRIPTORS
-----------------------	-------------------	--------------------

- ③ *Importer places the GTIN for the product in the entry record and sends to Customs*

ENTRY # Line N	GTIN= 123456119121
-------------------	-----------------------

- ② *Government downloads published product information from catalog*



Customs Data

10005143 =Dolls/Soft Toys (Powered);
Consumer Lifestage = >3 YEARS & UP;
Power Source = BATTERY; Target Gender
= FEMALE; Type of Doll/Soft Toy = BABY
DOLL



- ④ *Government matches GTIN with catalog info and makes admission decision, ideally in advance, using rich global data from catalog*

- ⑤ *If catalog data indicate low risk product, government **can release without inspection**; if high-risk, **can better plan for inspection efforts***

Government Agency Inspection

MEAT AND POULTRY BUSINESS CASE

USDA-FSIS and Tyson Foods

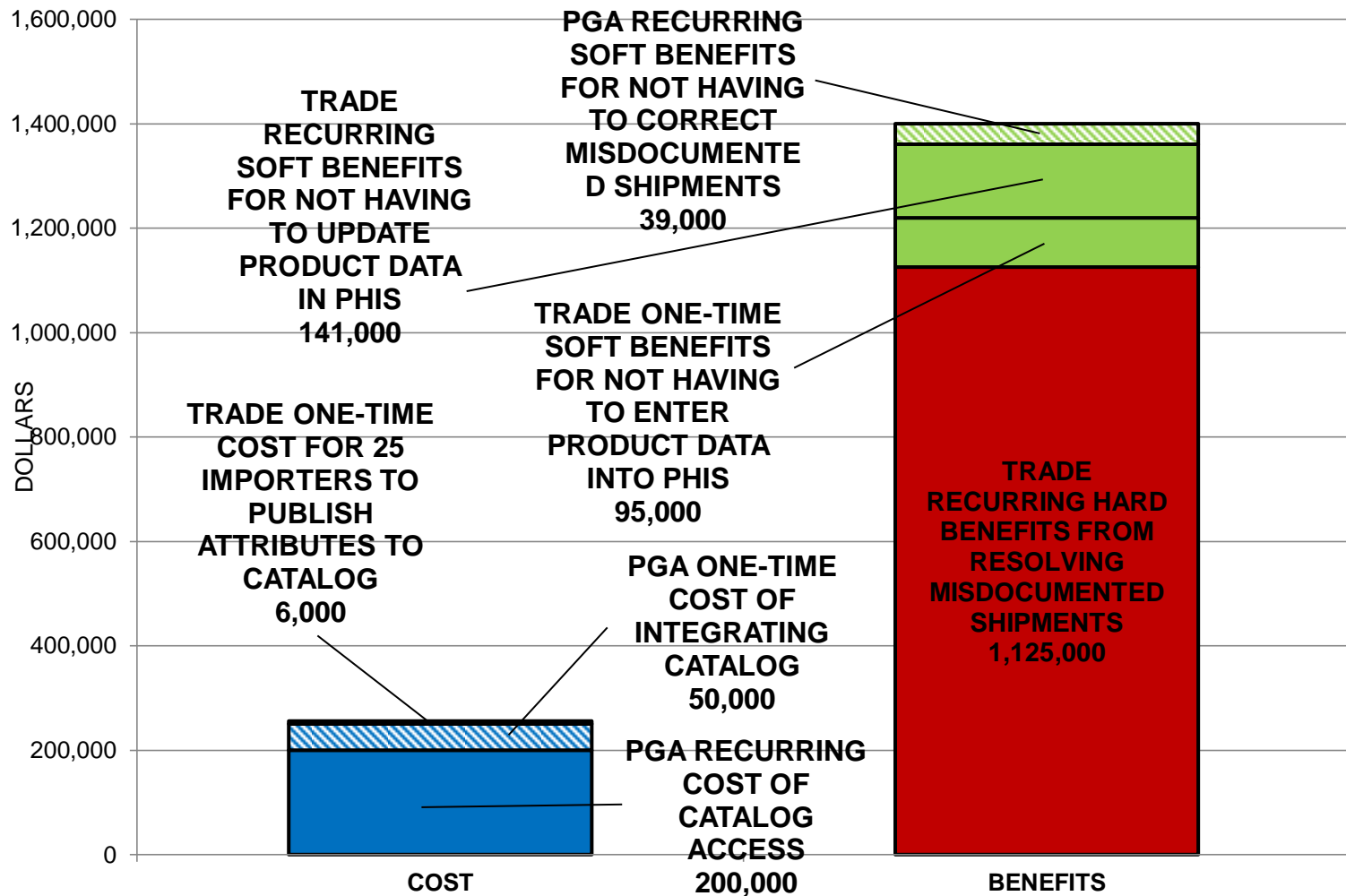
FINDING – CATALOGS CAN PROVIDE COMPLEX PRODUCT CLASSIFICATION DATA

- **All 21 of the FSIS static meat product elements can be populated** from the industry-standard product catalog
- **No information technology or security obstacles were identified** for downloading product information from the industry-standard product catalog, as **only standard Internet protocols are used**

BENEFIT – REDUCTION IN CERTIFICATE ERRORS CREATES SAVINGS

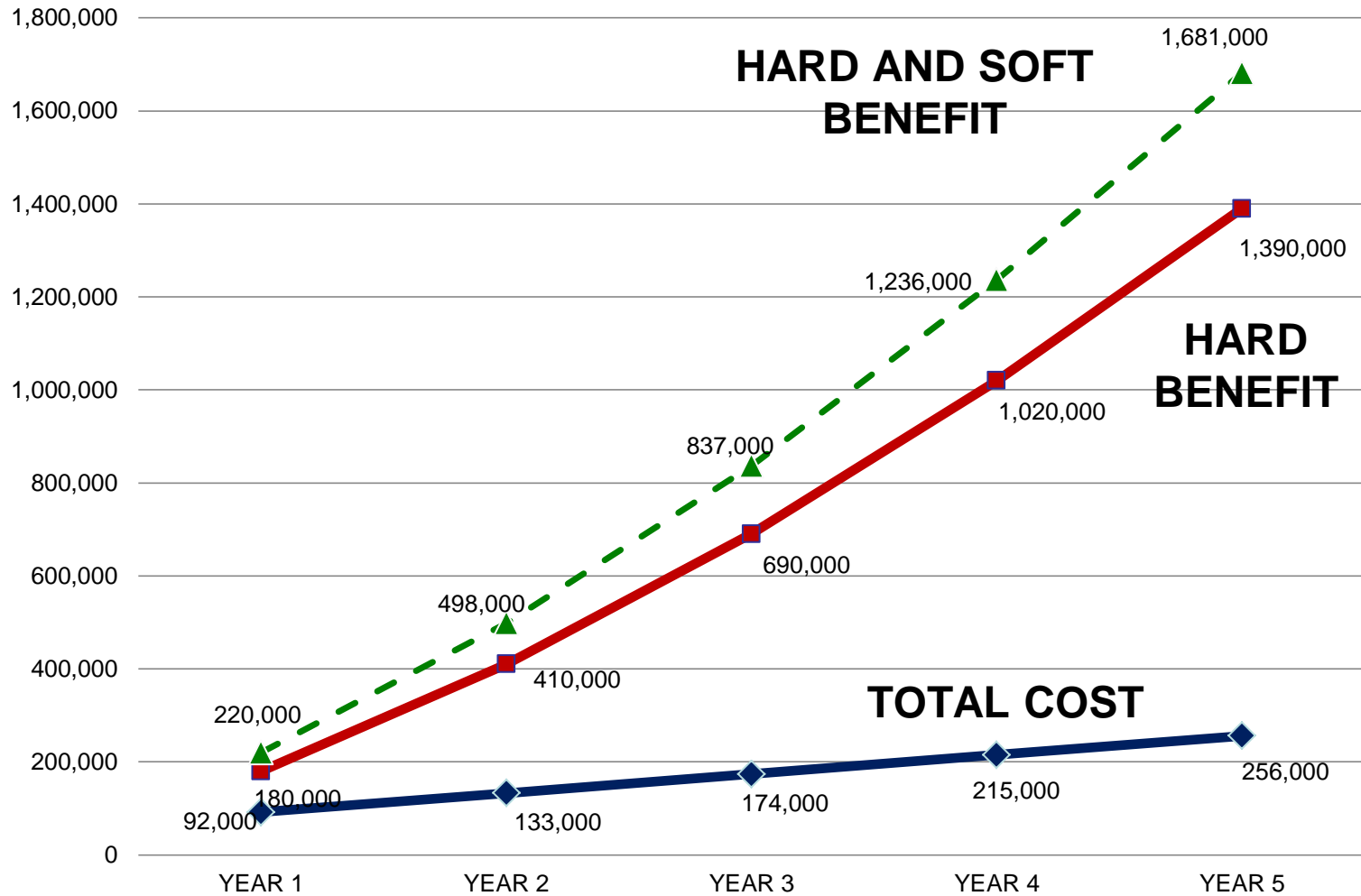
- **Reducing product characterization errors on 3 export certificates a year would save one major exporter about \$15,000**
- **Trade avoids operator time to enter product information through FSIS web interface**
- **FSIS reduces time correcting certificates and resolving admission issues at foreign ports**

NET VALUE OF \$1.4 M



For TOP 25 MEAT Exporters Over 5 Years

RETURN ON INVESTMENT OF 557%

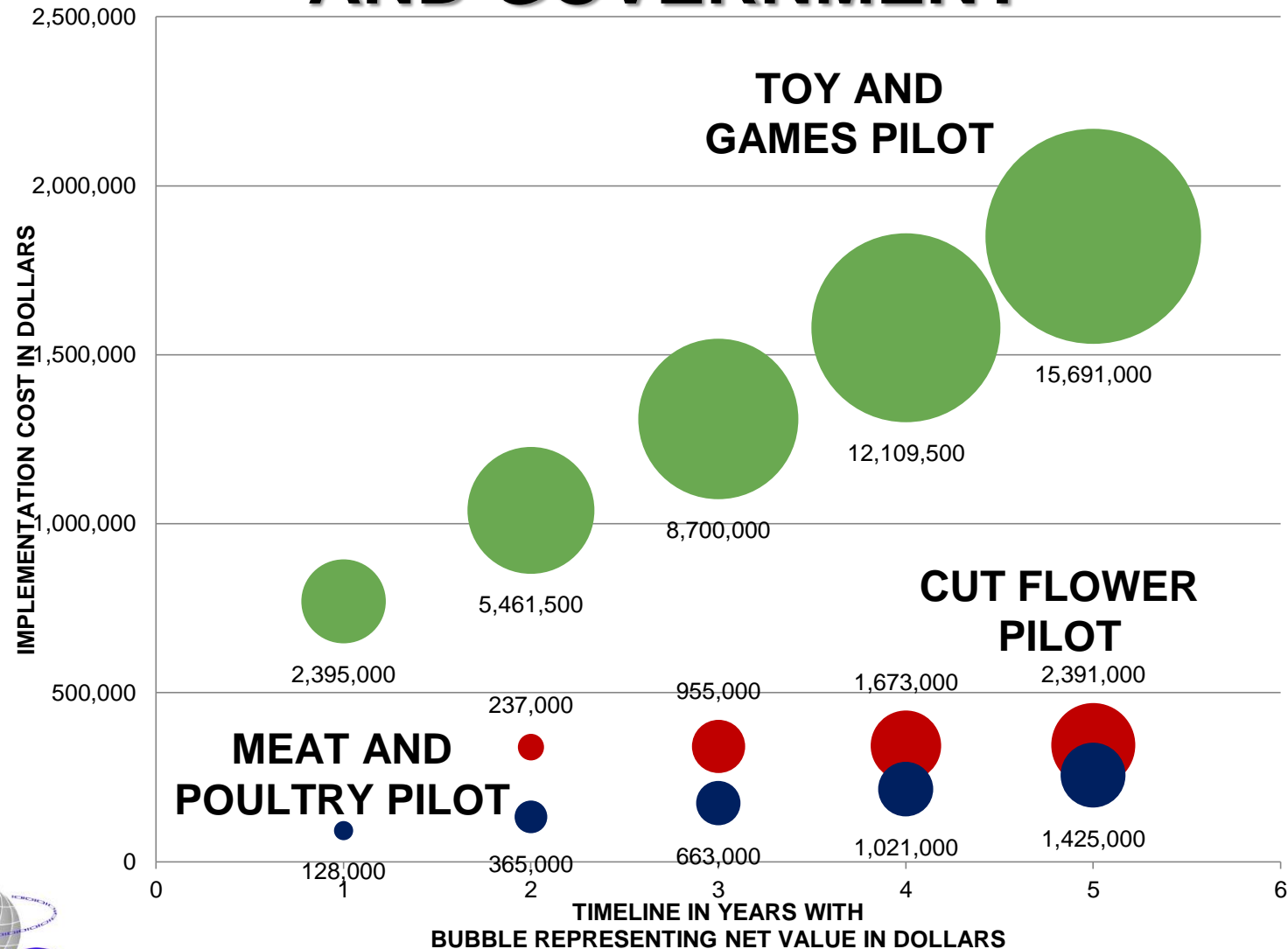


PIC CONCLUSIONS

The ITDS Board and its members should fully support implementation efforts to use e-commerce data to improve the efficiency of cross-border trade since:

- **Infrastructure in place by 2012** with CBP's Automated Broker Interface PG message set
- **Implementation costs are modest**
- **All Pilots repay investment in 1 to 2 years**
- **Pilots offer ROI from 500% to 800%**

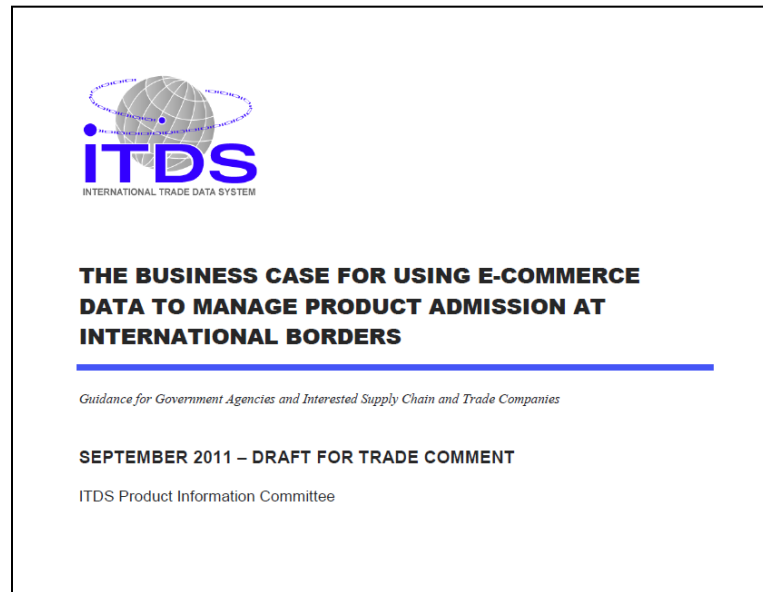
OPPORTUNITY IS REAL FOR TRADE AND GOVERNMENT



NEXT STEPS FOR THE REPORT

- Present the draft report to the ITDS Committee of the TSN and the entire TSN
- Amend the draft report after 45-day comment period
- Publish the final report by posting it on the ITDS web site and issuing a press release regarding its availability.
- Present the final report to the:
 - Border Interagency Executive Council (BIEC);
 - CBP for possible inclusion in ACE cargo release requirements; and
 - Information Management Subcommittee of the World Customs Organization Permanent Technical Committee as requested by WCO

The PIC Business Case Report is available at www.itds.gov Comment period closes November 15, 2011



For Additional Information e-mail:

douglas.bailey@ams.usda.gov

